Ten Pin Bowling Score Calculator

Create a class that will calculate the score for a complete game of 10 pin bowling.

The class should define a method that calculates the score for the game, given the number of pins knocked down on each roll in every frame. Note that some frames will only have one roll (a strike).

Each game has 10 frames. In each frame, the bowler has 2 rolls to knock down all 10 pins.

If they knock all pins down on the first roll, that is a Strike.

If they knock all 10 pins down using 2 rolls, that is a Spare.

If they don't knock all 10 pins down after 2 rolls, that is Sad.

The score for each frame is the number of pins knocked down in that frame, plus for a spare the number of pins knocked down on the next roll; for a strike the number of pins knocked down in that frame and the number of pins knocked down on the next two rolls.

A perfect game is one where the bowler throws a strike on every roll. The score of a perfect game is 300

Example:

First frame:

Roll 1 – 10 pins knocked down (Strike!!)

Roll 2 – not needed

Frame score: 10 + the number of pins on the next 2 rolls = 10 + 6 + 4 = 20

Second frame:

Roll 1 – 6 pins knocked down

Roll 2 – 4 pins knocked down (Spare!)

Frame score: 10 + the number of pins on the next 1 roll = 10 + 5 = 15

Third frame:

Roll 1 – 5 pins knocked down

Roll 2 – 4 pins knocked down (Sad!)

Frame score: 9